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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,052	01/26/2001	Veijo Vanttinen	324-010115-US(PAR)	7249

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Clarence A. Green
PERMAN & GREEN, LLP
425 Post Road
Fairfield, CT 06430

EXAMINER	
MEHRPOUR, NAGHMEH	
ART UNIT	**PAPER NUMBER**
2686	5

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/771,052	VEJJO VANTTINEN	
	Examiner	Art Unit	
	Naghmeh Mehrpour	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) 1-34 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) 1-34 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed reference listed in the information Disclosure submitted on 03/12/01, 6/07/01, have been considered by the examiner (see attached PTO-1449).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. **Claims 1-11, 16, 18-28, 33,** are rejected under 35 U.S.C. 102(e) as being anticipated by Josse et al. (US Patent Number 6,104,929).

Regarding claims 1, 18, Josse teaches a method/packet-switched radio system comprising:

a network part of the radio system (see figure 2,28, 30), which comprises a core network (SGSN, GGSN, HLR) (see figure 2, 24, 20, 26) and a radio network 30 connected to the core network 24 (Gb see figure 2), a radio UM connection from the radio network to a subscriber terminal 40 (UM, see figure 2); and

the network part comprising location service 26(HLR, see figure 2) means for locating the subscriber terminal 40 (col 5 lines 15-21); and

the subscriber terminal comprises means for transmitting a request message for location service to the core network via the radio network (col 7 lines 22-57);

the network part comprises means for performing at least one function required in the-request message and means for transmitting a response message to the subscriber terminal via the radio network (see figure , col 7 lines 21-40).

Regarding claims 2, 19, Josse teaches a method/a radio system wherein the request message relates to one of the following location service functions: determination of the subscriber terminal location, informing of an outside client of the radio system of the subscriber terminal location, transmission of location assistance data to the subscriber terminal, transmission of a ciphering key for decrypting the location assistance data to the subscriber terminal (col 8 lines 46-60).

Regarding claims 3, 20, a Josse teaches method/a radio system wherein the information included in the request message comprises desired quality of service of the requested location service (col 17 lines 20-22).

Regarding claims 4, 21, Josse teaches a method/a radio system wherein the other information comprises at least one of the following parameters: receiving power of the serving cell, receiving power of at least one neighboring cell, charge level of the battery in the subscriber terminal, information on the conditions at the location of the subscriber terminal (col 5 lines 6-21), identity of a separate device connected to the subscriber terminal.

Regarding claims 5, 22, Josse teaches a method/a radio system wherein the subscriber terminal comprises means for inserting at least part of the information included in the request message received by the core network 24/20(see figure 2, SGSN,/GGSN) into the request message (col 7 lines 23-28).

Regarding claims 6, 23, Josse teaches a method/a radio system wherein the radio network comprises means for inserting at least part of the information included in the request message received by the core network 24/20 into the request message (col 7 lines 23-28).

Regarding claims 7, 24, Josse teaches a method/a radio system wherein, if the function is location of the subscriber terminal, a special location procedure will be performed (see figure 3, col 7 lines 21-40). Figure 3 shows that the location update the request for the location update, transmits to SGSN then to HLR, and the HLR update the location and response with location message includes the SGSN Address and the IMSI of the mobile (col 8 lines 60-65).

Regarding claims 8, 25, Josse teaches a method/a radio system wherein the core network comprises means for locating the subscriber terminal on the basis of the information included in the request message (col 9 lines 10-20).

Regarding claims 9, 26, Josse teaches a method/a radio system, wherein the procedures required by the location service comprise receiving signals in the subscriber terminal and measuring them, or transmitting signals from the subscriber terminal (col 8 lines 42-44).

Regarding claims 10, 27, Josse teaches method/a radio system wherein the signals received in the subscriber terminal to implement the location service

comprise signals transmitted by the radio system including signals transmitted by other base stations 30(2) of the radio system than by that of the serving cell 30 (1) (col 6 lines 1-9), or the signals transmitted by a satellite of the GPS system.

Regarding claims 11, 28, Josse teaches method/a radio system wherein the network part of the radio system comprises means for checking whether the location of the subscriber terminal carried out corresponds to the target set for the quality of service (col 8 lines 45-60).

Regarding claims 16, 33, Josse teaches a radio system wherein the response message contains at least one of the following pieces of information: the location of the subscriber terminal(col 7 lines 21-40), location assistance data, a ciphering key for decrypting the location assistance data (col 0.8 lines 46-60), an error code, information on whether location information on the subscriber terminal is to be submitted to an outside client.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 12, 29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Jesse et al. (US Patent Number 6,104,929) in view of Mikkonen et al. (US Patent Number 6,501,741).

Regarding claims 12, 29, Josse fails to teach a method/a radio system wherein, if the target set for the quality of service is not achieved, the network part will perform a location service, which offers a better quality of service. However Mikkonen teaches a method of supporting the quality of service in packet data transmission in a wireless communication according to Internet protocol (col 1 lines 5-8). Mikkonen makes it is possible to define different qualities of service with different demands in a wireless communication system. The quality of service may include response time, within which the packet must be received or else it is rejected. By combining different criteria, several different qualities of service are obtained, which are other criteria than those has been rejected, and these criteria can be used in defining the quality of service (col 13 lines 39-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mikkonen with Josse, in order to reduce the effect of disturbance and achieving a desired error problem

rate that may require switch packet retransmission, which reduce the capacity of radio link.

6. **Claims 13-14, 30-31,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jesse et al. (US Patent Number 6,104,929) in view of Sanmugan et al. (US Patent Number 6,122,499).

Regarding claims 13, 30, Josse fails to teaches a method/a radio system wherein tracing of the route traveled by the subscriber terminal is performed so that the subscriber terminal 40 at regular intervals transmits a request message requesting location of the subscriber terminal. However Sanmugam teaches a method/a radio system wherein tracing of the route traveled by the subscriber terminal is performed so that the subscriber terminal 40 at regular intervals transmits a request message requesting location of the subscriber terminal (col 25 lines 43-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Sanmugam with Josse, in order to determine whether the identified mobile is still connected to the voice channel of the system for the purpose of detecting fraud.

Regarding claims 14, 31, Josse fails to teach a method/a radio system wherein tracing of the route traveled by the subscriber terminal is performed so that one parameter to be added to one location request is a definition of the need to determine the location of the subscriber terminal at regular intervals (col 12 lines 8-20). However Sanmugam a method/a radio system wherein tracing of the route traveled by the subscriber terminal is performed so that one parameter to be added to one location request is a definition of the need to determine the location of the subscriber terminal at regular intervals (col 25 lines 843-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Sanmugam with Josse, in order to determine whether the identified mobile is still connected to the voice channel of the system for the purpose of detecting fraud.

7. **Claims 15, 32,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jesse et al. (US Patent Number 6,104,929) in view of King et al.(US Patent Number 6,429,808).

Regarding claims 15, 32, Josse fails to teach a method/a radio system wherein the outside client of the radio system is informed of the location of the subscriber terminal by the core network, by the subscriber terminal. However King teaches a method/a radio system wherein the outside client 380 of the radio system is informed of the location of the subscriber terminal by the core network, by the subscriber terminal (col 8 lines 50-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time of

the invention to combine the above teaching of King with Josse, in order to determine the location information with the high degree of accuracy and tolerance of off-nominal error condition.

8. **Claims 17, 34,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jesse et al. (US Patent Number 6,104,929) in view of Korpela (US Patent Number 6,311,055).

Regarding claims 17, 34, Josse fails to teach a method/a radio system wherein the request message and the response message are messages of protocol layers that correspond to the third layer of the OSI model. However Korpela teaches wherein the mobile of third generation known by universal mobile telecommunications system (UMTS) transferred amount of data most preferably in the radio resource control (LLC) of layer 3 structure according to International Standardization Organization (OSI) (COL 4 lines 11-17, lines 32-36). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Korpela with Josse, in order to determine whether the identified mobile is still connected to the voice channel of the system for the purpose of detecting fraud. In order to determine a bill which is proportional to the transformed amount of payload data.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicants disclosure.

Havinis et al. (US Patent 6,104,931) disclose system and method for defining location services

Muhonen et al. (US Patent 2003/0186710 A1) disclose service provision in a communication system

Werkander (US Patent Number 6,519,234) disclose method and arrangement for transferring information using an existing message based service in a digital network

10. **Any responses to this action should be mailed to:**

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or faxed to:

(703) 872-9306, (for formal communications indented for entry)

Or:

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Hand-delivered responses should be brought to Crystal Park II. 2121 Crystal Drive, Arlington. Va., sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

any inquiry concerning this communication or earlier communication from the examiner should be directed to Melody Mehrpour whose telephone number is (703) 308-7159. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 6:30 a.m. to 5:00 p.m.

If attempt to reach the examiner are unsuccessful the examiner's supervisor, Marsha Banks-Harold be reached (703)305-4379.

Marsha D Banks-Harold

MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

NM

Feb 5, 2004